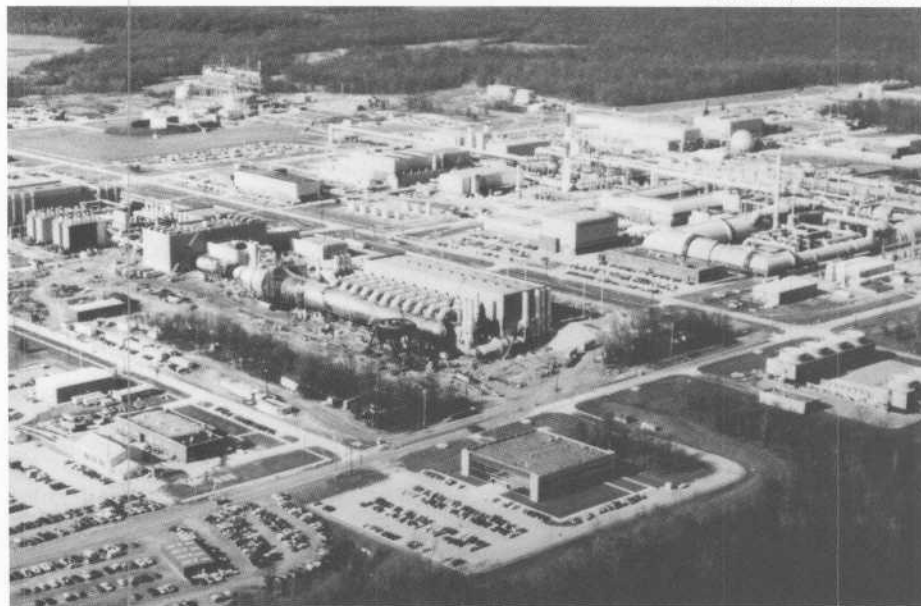


Military Construction

Arnold Engineering Development Center, Tullahoma, Tennessee, built for the Air Force.



Public Affairs Office, Corps of Engineers



Soldiers of the 95th Engineer General Service Regiment building a bridge on the Alaska Highway.

The military construction mission of the Corps of Engineers dates from the early days of World War II. Prior to that time, the Quartermaster Department built almost all Army facilities. By 1940 it was clear that this arrangement could not continue. Quartermaster resources were inadequate for the large mobilization job ahead. On the other hand, the engineers' civil works organization and experience provided the basis for absorption of the assignment. So, in November 1940, the War Department chose the Corps to build facilities for the Army Air Corps. Thirteen months later, the Corps undertook all construction for the Army's war effort.

This massive enterprise involved military and industrial projects. The Corps managed construction of a wide range of factories, most notably for the assembly of aircraft and tanks and the production of ammunition. Military installations included camps for 5.3 million soldiers, depots, ports and the Pentagon. Each of these tasks included planning, site selection, land acquisition, design, contract negoti-

ations, procurement, labor relations and the construction itself. All told, the wartime mobilization program involved more than 27,000 projects and cost \$15.3 billion, or approximately \$100 billion in 1980 dollars. Lieutenant General Leslie R. Groves, head of the Manhattan Project, summed up the significance of this work for the successful conduct of the war: "Mobilization was decisive and construction generally controlled mobilization."

Yet there was more to engineer construction during the war than the stateside program. Work in support of the war against Japan ranged over a vast portion of the world, from Panama to India and from Alaska to Australia. A huge organization, which grew to include 236,000 engineer troops in an Army of 1,455,000, built pipelines, dredged harbors and built and repaired ports throughout the Pacific theater. Some of the accomplishments in this region rivaled those of the Corps on the home front.

Among the major projects in the Pacific area was the air ferry route to the Philippines. To move heavy bombers west across the

Pentagon under construction in 1942.



ocean, the Corps built airfields on a host of Pacific islands. The engineers developed these bases in a matter of a few months.

Two land routes also merit special notice. The Alcan Highway, prompted by the threat of a Japanese invasion and the closure of Alaskan sea routes, ran over 1,500 miles of muskeg and mountains.

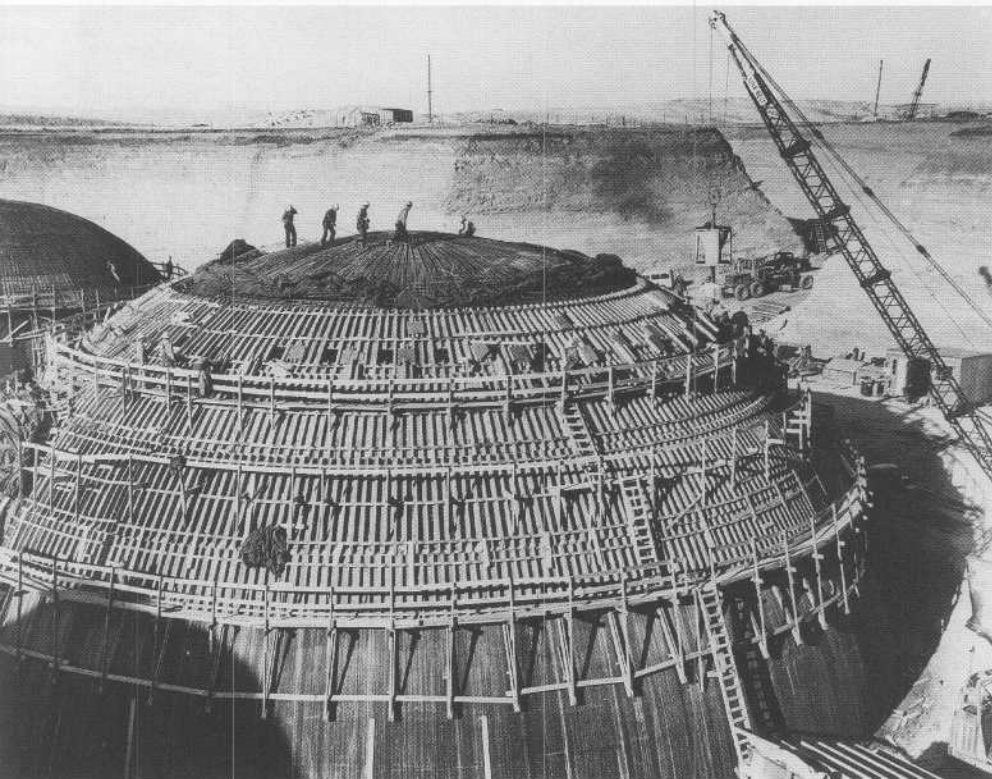
The project involved 133 major bridges and at the peak of construction employed 81 contractors and 14,000 men. Closer to the war, the Ledo Road from northeastern India to Burma crossed 430 miles of jungle, mountains and rivers. Alongside went the longest invasion pipeline ever built.

The war against Germany also

Operation Blue Jay

One of the more challenging assignments given to the Corps in the post-World War II period was Operation Blue Jay, the construction of a complete and modern airfield on the bleak wind-swept Greenland plateau at Thule, well north of the Arctic Circle. The project, dropped on the desk of Lieutenant General Lewis Pick, Chief of Engineers, during Christmas week 1950, required molding a forbidding landscape to accommodate the needs of a sophisticated airfield. Army engineers moved millions of tons of rock and gravel, erected thousands of tons of steel and aluminum, and provided water, heat, power and all the conveniences of civilization. Moreover, the construction had to be done during the short summer period of daylight.

The reconnaissance force which flew into the area in February 1951 experienced savage blizzards, solidly frozen ground and temperatures well below zero. Meanwhile machinery was mobilized at home. Nobody was sure that ships could even reach such a remote outpost; the path across the sea was littered with the wrecks of ships which had failed. The Navy was called in to help and it supplied ice breakers, tankers, survey ships, big landing craft, salvage ships and barges. On July 15, the first of these vessels made it to Greenland, and there faced another challenge—landing the supplies. The beaches were strewn with boulders. Consequently, bulldozers and other equipment were flown in. Access roads and a dock were built. All this work required around-the-clock shifts. Before it was all over, a hundred ships had anchored off-shore, 4,000 men from all the Army technical services were assigned to the construction and 6,000 construction workers were employed to complete the airfield as quickly as possible. The result was the completion of almost all construction within 100 days. The Corps of Engineers had licked the Arctic.



United States Army

Titan ICBM powerhouse under construction by the Corps of Engineers at Denver, Colorado, in late 1959.



demanding massive construction support. After building bases in Greenland and Iceland to protect Atlantic shipping, the Corps moved to England, where as many as 61,000 Army engineers created the ground and air facilities required to support the invasion of France. During the same period in North Africa, the Corps built many airfields for British and American air forces and provided ports and depots to support the invasion of Italy.

In June 1944, engineers moved into Europe with the Allied invasion. Operations included the rehabilitation of ports and railroads as well as airfield and depot construction. For example, engineers cleared and reconstructed the port of Le Havre using plans developed well before the advance into France. Large construction projects also included a camp and depot at Valognes, France, that served as headquarters for logistical forces of the Communications Zone. The post included tents for 11,000 soldiers and provided 560,000 square feet of hutted office space.

After the war, the Corps maintained a large presence in Europe. Engineers restored transportation networks and other public services in Germany and Austria. In France, during the early 1950s, the Corps performed a wide array of line of communications construction, from pipelines to supply depots, in anticipation of the need to reinforce units in Germany. With American troops still in Germany, engineer construction goes on there and includes hospitals, depots, billets and offices.

The Corps also remained with the occupation forces in Japan and met all of their building requirements. When war broke out in Korea, bases in Japan provided the springboard for the movement and supply of forces deployed against the North Koreans and Chinese. In Korea itself, engineers performed

remarkable feats of road and bridge construction over extremely difficult terrain and provided ports and airfields for friendly forces. They rehabilitated water supply and sanitation systems that remain in use by the Republic of Korea, and they still provide construction support for American units stationed there.

Military construction after the Korean War expanded into numerous countries. Work continued in Europe and the Far East, but increasing Cold War tensions led to the establishment of bases elsewhere. Through the 1950s and into the 1960s, the Corps built early warning facilities and airbases in diverse locales, including Greenland, Morocco and Libya.

Following the Soviet launching of Sputnik in 1957, the United States expedited the development of its intercontinental ballistic missile (ICBM) program. As the construction agent for the Air Force, the Corps established the Corps of Engineers Ballistic Missile Construction Office (CEBMCO) in 1960. CEBMCO built development, testing, and training facilities as well as the operational launch sites for the Atlas, Titan, and Minuteman missiles. In the 1970s the Corps continued construction support for missile systems, working through the Huntsville Division on the Sentinel and Safeguard antiballistic missile programs.

During the military buildup of the 1980s, the Corps conducted very large construction programs for the Army and the Air Force. For the first half of the decade, the construction effort reached approximately a billion dollars of work a year for each service. In the largest Army construction program since World War II, the Corps built a new installation at Fort Drum, New York, for a newly organized light infantry division, the 10th Mountain. Although the division used some of the existing buildings,

the Corps constructed almost an entirely new post, including infrastructure, barracks, family housing, dining facilities, headquarters buildings, a large physical fitness complex, medical clinics, and an Army airfield. Built on a tight schedule, the almost \$1 billion construction program produced a modern, well-planned installation adapted to its environment and incorporating lessons learned at other Army installations. With its enclosed shopping mall, child care center, and recreational and entertainment facilities, the installation reflected the Army's growing concern about the quality of life of its soldiers and their families. Although unique in its scope and complexity, the Fort Drum program was only one portion of the busy Army and Air Force construction programs of the Reagan administration.

With the collapse of the Soviet Union and the end of the Cold War, the military construction programs declined, but important work remained. As the armed services reduced in size, the Defense Department closed and consolidated installations in the Base Realignment and Closure (BRAC) process, necessitating construction at many bases. In addition the Defense Department launched an ambitious program to clean up environmental pollution on formerly used and existing military installations. The Corps of Engineers played a large role in that cleanup effort for the Army and the Air Force. Although new construction work declined, the Corps still supported the Army and the Air Force as they adapted their installations to new technologies and improved the living conditions of service members and their families.